

loaded carbon was ashed at a lower temperature, thus causing a less severe sintering effect.

Example 3. Activated carbon was used as the absorbent to adsorb gold from gold cyanide complex solution. At the completion of the adsorption, the loaded carbon contains 0.18 grams of gold per kilogram of carbon. The loaded carbon was ashed in a muffle furnace at 650°C for 5 hours. The resulting ashes were mixed with dilute acids to dissolve the impurities and gold nanoparticles were obtained as the centrifuge product. The sintering effect is less severe in this sample (Sample 3) than in the Sample 2. The test produced gold nanoparticles of about 50 nanometers. With a lower gold content in the loaded carbon, compared to Sample 2, the gold particles become smaller when gold cyanide complex is reduced and gold particles crystallize in the ashing step.

What is claimed is:

1. A method of generating nanoparticles of gold, silver or platinum group metals; the method comprising the steps of:
  - (a) adsorbing dissolved species of gold, silver or platinum group metals using an absorbent;
  - (b) ashing the loaded absorbent to produce ashes; and
  - (c) removing impurities from the said ashes.
2. The method of claim 1 wherein said dissolved species include complexes of cyanide, chloride and thiourea.
3. The method of claim 1 wherein said absorbent includes activated carbon and resin.

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